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MZOE-004

M. SC. (ZOOLOGY)

(MSCZOO)

Term-End Examination

December, 2025

**MZOE-004 : INSECT MORPHOLOGY AND
TAXONOMY**

Time : 2 Hours

Maximum Marks : 50

***Note :** Attempt any **five** questions. The marks
for each question are indicated against it.*

1. (a) Write the general morphology of an
insect head. 5

- (b) Discuss the role of Juvenile Hormone (JH) and ecdysteroids in female reproduction in insects. 5
2. (a) Write the important characteristics of Apterygota. 5
- (b) Write *one* example of each of the following insect orders : 5
- (i) Diptera
 - (ii) Coleoptera
 - (iii) Hemiptera
 - (iv) Lepidoptera
 - (v) Hymenoptera
3. (a) Describe the structure of a typical insect leg with suitable diagram. 5
- (b) Discuss the significance of cuticle in insects. 5

4. (a) What are spermatophore and how do they aid in sperm transfer ? 5
- (b) Briefly discuss diapauses in insects. 5
5. (a) Describe the origin and evolution of various insect groups. 5
- (b) Briefly explain different types of wings in insects. 5
6. Differentiate between the following pairs of terms : 2.5×4=10
- (a) Cursorial and Fussorial legs
- (b) Dorsal ocelli and Stemmata
- (c) Hemimetabolous and Holometabolous insects
- (d) Sponging and Siphoning mouthparts

7. (a) Describe briefly about abdominal appendages. 5
- (b) Discuss the functions of mechanoreceptors in insects. 5
8. (a) Diagrammatically discuss the skeleto-muscular organization of abdominal segments. 5
- (b) Discuss the eclosion in decticious pupa and adecticious pupa. 5

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